

Special Session VI

Special Session Basic Information:

专栏题目 Session Title	中文：任务系统的可靠性评估与运维策略优化 英文：Reliability Assessment, and Optimization of Operation and Maintenance Strategies for Mission-Critical Systems
专栏介绍和征稿主题 Introduction and topics	<p>中文：</p> <p>随着航空航天、高端装备及关键基础设施等任务关键系统复杂性的日益增加，其在复杂环境、部件退化及突发故障下的可靠性保障与高效运维已成为工程与学术界的核心关注点。本专题旨在汇集该领域的最新研究成果，探讨任务系统可靠性量化评估、动态风险预警、智能运维策略优化以及相关工程应用。</p> <p>征稿主题包括但不限于：</p> <ol style="list-style-type: none">1. 复杂环境下任务系统可靠性建模与评估方法2. 任务系统的任务终止策略设计与优化3. 资源约束下系统的任务执行与运维策略联合优化4. 多任务场景下系统可靠性分配与运维策略联合优化5. 数据驱动的任务系统智能运维与健康管管理 <p>英文：</p> <p>With the increasing complexity of mission-critical systems in aerospace, high-end equipment, and critical infrastructure, ensuring their reliability under complex environments, component degradation, and sudden failures, along with efficient operation and maintenance, has become a central focus in both engineering and academia. This special issue aims to bring together the latest research advancements in this field, exploring topics such as quantitative reliability assessment of mission systems, dynamic risk warning, intelligent operation and maintenance strategy optimization, and related engineering applications.</p> <p>Topics of interest include, but are not limited to:</p> <ol style="list-style-type: none">1. Reliability modeling and assessment methods for mission systems in complex environments2. Design and optimization of mission abort strategies for mission systems3. Joint optimization of mission execution, and operation and maintenance strategies under resource constraints for mission systems4. Joint optimization of system reliability allocation and operation and maintenance strategies in multi-task scenarios5. Data-driven intelligent operation and maintenance, and health management for mission systems

Special Session Chair(s):

	姓名 Name	赵先 Xian Zhao
	称谓 Prefix	教授 Professor
	部门 Department	经济学院 School of Economics
	单位 Organization	北京理工大学 Beijing Institute of Technology
	城市/地区 City/Region	北京 Beijing

Organizer's Brief Biography

中文：

赵先，北京理工大学经济学院副院长、教授、博士生导师。长期从事系统可靠性相关领域的研究，在 EJOR, RESS, IISE Trans 等 SCI/SSCI 期刊发表论文 90 余篇，入选全球前 2% 顶尖科学家终身和年度科学影响力榜单。先后主持国家自然科学基金（青年项目、面上项目、重点项目）6 项，以及国防技术基础等科研项目 20 余项。先后入选教育部新世纪优秀人才支持计划，国家级青年人才计划等。获第十四届霍英东教育基金会高等院校青年教师奖、北京市青年教学名师奖等荣誉。兼任中国运筹学会可靠性分会副理事长，中国双法研究会工业工程分会副理事长等。

英文：

Xian Zhao, Associate Dean, Professor, and Doctoral Supervisor at the School of Economics, Beijing Institute of Technology. He has long been engaged in research related to system reliability, published more than 90 papers in SCI/SSCI journals such as EJOR, RESS, and IISE Trans, and was selected into the World's Top 2% Scientists Lifetime and Annual Scientific Influence Lists. He has presided over 6 National Natural Science Foundation projects (Youth Project, General Project, Key Project) and more than 20 scientific research projects such as the National Defense Technology Foundation. He has been selected into the Program for New Century Excellent Talents in University of the Ministry of Education, the National Young Talent Program, etc. He has won some honors, such as the 14th Higher Education Young Teacher Award of the Fok Ying Tung Education Foundation and the Beijing Young Teaching Master Award. He concurrently serves as Vice Chairman of the Reliability Branch of the Operations Research Society of China, and Vice Chairman of the Industrial Engineering Branch of the Chinese Society for Optimization, Overall Planning and Economic Mathematics, etc.



姓名 Name	王小越 Xiaoyue Wang
称谓 Prefix	教授 Professor
部门 Department	商学院 Business School
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Organizer's Brief Biography

中文：

王小越，教授、博士生导师，长期从事系统可靠性管理研究，在 EJOR, RESS, C&IE, IJPR 等权威期刊发表论文 50 余篇，5 篇入选 ESI 高被引论文，出版学术著作 2 部，主持国家自然科学基金项目 2 项、北京市社会科学基金项目 1 项。入选 2023-2025 年北京市科学技术协会青年人才托举工程，北京工商大学“工商青年学者”。担任中国运筹学会可靠性分会理事、副秘书长，中国现场统计研究会可靠性工程分会理事，中国系统工程学会系统可靠性工程专业委员会委员等。

英文：

Xiaoyue Wang, Professor and Doctoral Supervisor, has long been engaged in research on system reliability management. She has published over 50 papers in authoritative journals such as EJOR, RESS, C&IE, and IJPR, with five papers recognized as ESI highly cited papers. She has authored two academic monographs, and has led two projects funded by the National Natural Science Foundation of China and one project funded by the Beijing Social Science Foundation. She was selected for Young Elite Scientist Sponsorship Program by Beijing Association for Science and Technology (2023-2025) and was honored as a "Young Scholar of Business" at Beijing Technology and Business University. She serves as a Director and Deputy Secretary-General of the Reliability Branch of the Operations Research Society of China, a Director of the Reliability Engineering Branch of the Chinese Association for Applied Statistics, and a member of the System Reliability Engineering Professional Committee of the Systems Engineering Society of China.